

4.2.3. Digital Input/Output Module

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FRnet Remote I/O Modules

Digital Input Module														
Model Name	FR-2053IT		FR-2053TA		FR-2053HTA		FR-2054T		FR-2057IT		FR-2057TW		FR-32R	
Pictures														
Digital Input														
Channels	16				8				-		-		-	
Type	Wet				Wet				-		-		-	
Sink/Source (NPN/PNP)	Sink/Source				Sink, Source				-		-		-	
Isolation	3750 Vrms				3750 Vrms				-		-		-	
On Voltage Level	19 ~ 30 Vdc		3.5 ~ 30 Vdc		19 ~ 30 Vdc		-		-		-		-	
Off Voltage Level	11 Vdc Max.		1 Vdc Max.		11 Vdc Max.		-		-		-		-	
Input Impedance	3.25 KΩ		3 KΩ		3.3 KΩ		-		-		-		-	
Digital Output														
Channels	-				8				16		32		-	
Type	-				Open Collector				Open Collector		Power Relay (Form A, SPST)		-	
Sink/Source (PNP/NPN)	-				Sink (NPN)				Sink (NPN)		-		-	
Isolation	-				3750 Vrms				3750 Vrms		1500 Vrms		3000 Vrms	
Load Voltage	-				5 ~ 30 Vdc				5 ~ 30 Vdc		5 ~ 30 Vdc		3A/125 Vdc, 3A/270 VAC	
Max. Load Current	-				250 mA				100 mA		250 mA		-	
FRnet Communication														
Normal Speed	Update time	2.88 ms		Yes	Yes (default)	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes (default)
	Baud rate	250 Kbps												
	Distance	400 m Max.												
High Speed	Update time	0.72 ms		Yes (default)	-	Yes (default)	Yes (default)	Yes (default)	Yes (default)	Yes (default)	Yes (default)	Yes (default)	Yes (default)	-
	Baud rate	1 Mbps												
	Distance	100 m Max.												
LED Indicators														
Power					1 LED (Yellow)									
Communication Run					1 LED (Green)									
Communication Error					1 LED (Red)									
Terminal Resistor					1 LED (Yellow)									
I/O Status	16 DI LEDs (Green)				8 DO LEDs (Red) and 8 DI LEDs (Green)				16 DO LEDs (Red)		16 DO LEDs (Red)		32 DO LEDs (Red)	
Power														
Input range					+10 ~ +30 Vdc									
Power Consumption	2.4 W		2.4 W		2 W		2.4 W		2.4 W		2.4 W		3.36 W	
Environment														
Operating Temperature					-25 ~ +75°C									
Storage Temperature					-30 ~ +85°C									
Relative Humidity					10 ~ 90 % RH (non-condensing)									
Mechanical														
Installation					DIN-Rail Mounting									
Dimensions (W x H x D)					33 mm x 107 mm x 102 mm								173 mm x 177 mm	